

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 26

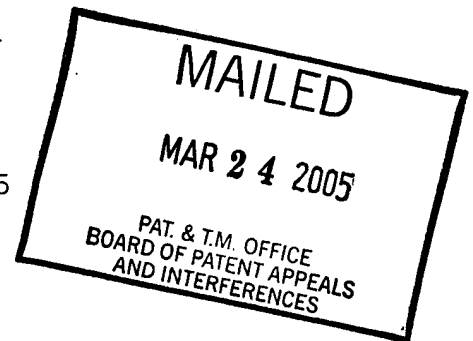
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STUART B. BERMAN

Appeal No. 2005-0358
Application No. 09/330,755

ON BRIEF¹



Before THOMAS, LEVY, and SAADAT, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 50 through 55.

Representative claim 50 is reproduced below:

50. An improved port control module for use in a fibre channel switching fabric comprising:

a fibre channel input/output port for connection to a link,

¹In accordance with the communication to appellant in paper no. 25 mailed on March 14, 2005, the outstanding request for an oral hearing in this appeal has been waived.

Appeal No. 2005-0358
Application No. 09/330,755

an encoder/decoder in communication with the
input/output port, and

a buffer,

the improvement comprising the inclusion of buffer overrun
prevention logic between the encode/decoder and the buffer,
the buffer overrun prevention logic tagging, but not
terminating, words that overrun the buffer.

The following references are relied on by the examiner:

Gulick	4,809,269	Feb. 28, 1989
Tom et al. (Tom)	5,262,625	Nov. 16, 1993
Lowell	5,341,476	Aug. 23, 1994
Bennett et al. (Bennett)	5,592,160	Jan. 7, 1997

Claims 50 through 55 stand rejected under 35 U.S.C. § 103.

As evidence of obviousness as to claims 50, 51, 53 and 54, the
examiner relies upon Bennett in view of Gulick, further in view
of Lowell, with the addition of Tom as to claims 52 and 55.

Rather than repeat the positions of the appellant and the
examiner, reference is made to the brief and reply brief for
appellant's positions, and to the answer for the examiner's
positions.

OPINION

Generally for the reasons set forth by the examiner in the
answer, we sustain the rejection of claims 50 through 55 under 35
U.S.C. § 103. The following amplifies upon the examiner's
positions in the answer.

At the outset, we note that appellant states in the middle of page 3 of the principal brief on appeal that "[a]ppealed claims 50-55 stand as a group." The subsequent arguments focus upon claim 50 as representative of all claims on appeal. We do so likewise.

The examiner's reasoning of combinability appears to be a major issue in this appeal from the appellant's perspective. The examiner's initial discussion of each reference and the rather weak rationale of their own respective combinability set forth in the statement of the rejection at pages 3 through 5 of the answer is embellished upon and significantly expanded in the subsequent pages of the answer in the responsive arguments portion of it. There, the examiner addresses each of the principal arguments beginning at page 4 of the principal brief on appeal. For example, the examiner has addressed at the middle of page 6 the analogous nature of so-called overflow situations and overrun situations which has not been contested in the reply brief.

We also note the examiner has interpreted an argument presented by appellant in the brief with respect to Gulick as arguing that Gulick is not analogous art essentially because it relates to unclaimed but disclosed features of fiber optic switching environments. To expand upon the examiner's rationale,

we note that the test to determine whether the prior art is analogous is: "(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." In re Clay, 966 F.2d 656, 658-59, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992) (citing In re Deminiski, 796 F.2d 436, 442, 230 USPQ 313, 315 (Fed. Cir. 1986); In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). Note also the common sense analysis in In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1445-46 (Fed. Cir. 1992) as to what fields of endeavor an artisan would reasonably be expected to look for a solution to the problems facing the appellant. Note also the similarity of structure and function analysis in In re Ellis, 476 F.2d 1370, 1372, 177 USPQ 526, 527 (CCPA 1973), which is relied upon at the end of Clay.

Although we recognize and, apparently the examiner does as well, that Gulick is not in the exact same field, as narrowly defined, of endeavor as appellant's disclosed invention, we are persuaded that this reference is analogous to the invention of Bennett and to the disclosed invention "since both Gulick and Bennett are concerned with buffering of data. Specifically, both

Gulick and Bennett are concerned with the loss of data that occurs when a full buffer receives additional data. Given this nexus, Examiner maintains that Bennett and Gulick are combinable." Answer, page 7. There is no response to this in the reply brief.

Appellant's principal argument as to Gulick is at page 5 of the principal brief on appeal. Here appellant asserts that Gulick's teaching is opposite the claimed invention feature of tagging, but not terminating, words that will overrun the buffer. Although we agree with this view that the combination of only Gulick and Bennett does not teach the negative limitation of not terminating, it is clear the examiner recognizes this when the discussion, for example, at the bottom of page 7 of the answer indicates that "Gulick teaches that when buffer overrun occurs, the bytes that overrun the buffer are dropped and the last byte in the buffer is tagged wherein the tagging of the byte signals the system to empty the buffer." The examiner further reasons, significantly, "that these teachings suggest tagging the last data placed in a buffer during an overrun in order to clear the buffer of the data corrupted by the overrun so that the buffer can accept new data. As such, Examiner maintains that Gulick provides a motivation for the combination [with Bennett] where

the motivation is to signal the system, through the use of tags, that data stored in a buffer should be emptied (terminated) during the overrun." This is a significant modification of Bennett's teachings with which we agree within the examiner's rationale of combinability since Bennett's solution is to merely provide an additional buffer for overrun protection in the form of the overflow buffer number 0 in figure 4 at column 5, lines 65 and 66.

The examiner even freely admits at the top of page 8 that he agrees with the combination of Gulick and Bennett teaching the opposite of the claimed invention since Gulick clearly terminates the data that overruns the buffer. Up to this point in the analysis there is a strong sense of persuasiveness of the appellant's reasoning in the brief except it does not include the examiner's additional reliance upon Lowell and the modifying teachings of that reference to the combination of Bennett and Gulick.

At this point, however, we fully agree with the examiner's further rationale expressed beginning at the bottom of page 8 of the answer:

Lowell teaches that the data that overruns a buffer can be handled in multiple ways. One way that Lowell teaches is to drop all overrun data. This is the solution used by Gulick.

Lowell also teaches that the overrun data can overwrite either the youngest data in the buffer or the oldest data in the buffer. In other words, Lowell [also] teaches "buffer prevention logic" that does not terminate words that overrun the buffer. It is implicit that, by not terminating words that overrun the buffer, the buffer prevention logic saves the latest data at the expense of older data. It is also implicit that, by not terminating words that overrun the buffer, the buffer prevention logic is not required to identify the overrun words for subsequent termination prior to the buffer since all words are written to the buffer. Therefore, Lowell suggests that it is beneficial not to terminate the words in order to ensure that the most recent data is saved in the buffer. As such, Examiner maintains that there is a suggestion to combine the teachings.

In short, Bennett teaches a data storage mechanism. Gulick improves Bennett by including a tagging mechanism which signals a system to empty a buffer that contains data corrupted by overrun. Lowell further refines this system by overwriting the oldest data with the newest data to ensure that the newest data is saved at the expense of the oldest data until the overrun is cleared. Given the prior art, Examiner submits that Applicant's claims are not patentable because the prior art teaches the limitations of Applicant's claims.

We buttress the examiner's view of Lowell. As a result of our study of this reference, it appears to us that it's a modularized network interconnect environment from a software perspective and appears to be network architecture independent, that is, independent of any type of structural architecture limiting it. Therefore, it contains general teachings that would have therefore applied to all network architectures, such as those of Bennett-Gulick. The four listed buffer options

discussed at the top half of column 7 of Lowell relate to the selectability of the overrun code field 56 in representative figure 5, the general operation of which as it pertains to the fourth option is discussed at the bottom of column 8. A brief discussion at the top of column 11 instructs the artisan as to why a particular type of sink file buffer 54 architecture and overrun protection methodology would be chosen. Significantly, it is the data consumer 20, 22, 24 and 26 in the various figures that is permitted to choose which of the four buffering approaches it desires to select. Therefore, the examiner's rationale at page 9 of the answer that "Lowell further refines" the Gulick, Bennett combination is an apt characterization of the teaching value of this reference since it is the user/consumer that is given the option to choose what overrun protection methodology the consumer chooses for his particular terminal based upon its unique needs. At least the fourth option of data buffering in Lowell does not require data termination, which clearly meets the "not terminating" feature of representative independent claim 50 on appeal.

When we review appellant's reply brief, we are equally unpersuaded of the patentability of the subject matter of the claims on appeal. The arguments presented here are limited to

Appeal No. 2005-0358
Application No. 09/330,755

the examiner's statement of the rejection in the initial pages of the answer rather than the more expanded version of the analysis of the references and the combinability reasoning of the examiner beginning at the bottom of page 5 of the answer.

Appellant's remarks at page 2 of the reply brief that the examiner's position relies upon an obvious to try rationale is misplaced. It is Lowell and not the examiner that specifically teaches circumstances of the user/consumer in Lowell's arrangements which buffering approach to use in answer to the question of which of the options of overflow configurations are we to pick in this case (reply brief, page 2). We do not understand the examiner's reasoning and the teachings of Lowell as to give only general guidance as to which option to select as noted in In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d, 1673, 1681 (Fed. Cir. 1988). As indicated here, obviousness does not require absolute predictability of success, only a reasonable expectation of success. The above-quoted examiner reasoning at

Appeal No. 2005-0358
Application No. 09/330,755

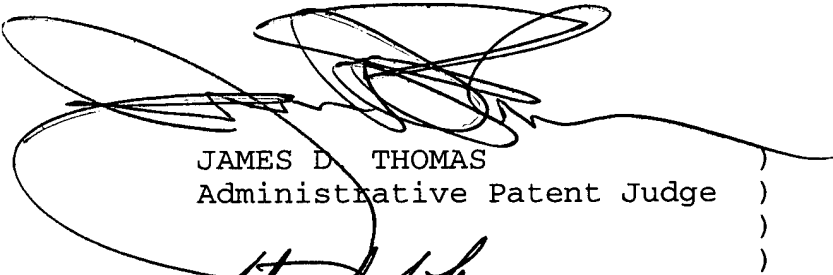
pages 8-9 of the answer explains from an artisan's perspective the advantages of not terminating words that overrun a buffer. We emphasize again here that the reply brief makes no mention of the examiner's expanded rationale in the responsive arguments portion of the answer as to the combinability of Bennett, Gulick and Lowell.

Appeal No. 2005-0358
Application No. 09/330,755


In view of the foregoing, the decision of the examiner
rejecting claims 50 through 55 under 35 U.S.C. § 103 is affirmed.

No time period for taking any subsequent action in
connection with this appeal may be extended under 37 CFR
§ 1.136(a)(1)(iv).


AFFIRMED



JAMES D. THOMAS
Administrative Patent Judge)



STUART S. LEVY
Administrative Patent Judge)



MAHSHID D. SAADAT
Administrative Patent Judge)

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Appeal No. 2005-0358
Application No. 09/330,755

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